



## Statewide Water Needs

The CALFED Bay-Delta Program is striving to balance competing needs in the Bay-Delta system while increasing water supply reliability. Program actions will bring about a closer balance between supply and demand. However, even with all the CALFED actions in place, some economic and environmental hardships will occur in driest years, when projected supplies cannot completely satisfy California's demand for water. The figure below depicts the relative effect during drought periods of various water management measures contemplated within the CALFED Program.

Demand projections, depicted by the top line in the figure, represent the needs of a statewide population estimated to surpass 45 million by 2020. Even with the continued implementation of current levels of water conservation and the loss of some irrigated agricultural lands in the Central Valley, statewide demand is still projected to increase because of population growth. As our understanding of the Bay-Delta ecosystem has improved, we have also recognized additional environmental water needs, such as increased instream flows. There is uncertainty regarding future demands, so these demands are depicted by the range shown in the figure.

Statewide water supply projections, shown at the bottom the figure, represent all of the water sources available to the state. These supply projections represent projections of developed supplies and supplies dedicated to environmental purposes. (Water dedicated to remain in north coast rivers and streams has been excluded from the graph.) All other supply sources are included -- from local groundwater to reclaimed water, and from the Colorado River to the Central Valley's rivers and streams.

Also depicted on the figure are potential supply increases and demand reductions that might be achieved through conjunctive management, new surface storage, new conveyance facilities, and a host of efficiency measures, including more extensive urban and agricultural water conservation and water recycling.

Demand reductions anticipated from increased water use efficiency and water recycling are detailed in the CALFED Phase II Interim Report. Collectively, they represent the potential for roughly 4 million acre feet of reduced future demand. This level of savings will increase over time: much of the urban conservation potential reflects a reduction from future demand levels that are projected but not yet reached.

The use of new surface storage, conjunctive management of ground and surface water resources, and new facilities could improve the flexibility to manage water that is available for the state's urban, agricultural, and environmental uses. Though the expected contribution to supply in acre feet is significantly less than that expected from water use efficiency, the ability to increase the value of water through storage, improved conveyance, and changes in system operations could provide numerous benefits that do not show up as "increased yield." Rather, these benefits are seen through improvements in water supply reliability.

# DROUGHT YEAR PROJECTIONS

